DOCUMENT RESUME

ED 188 088 CG 014 485

AUTHOR Mannarino, Anthony P.; And Others
TITLE Evaluation of Social Competence Training in the Schools.
PUB DATE 80
NOTE 21p.; Paper presented at the Annual Meeting of the Midwestern Psychological Association (52nd, St. Louis, MO, May 1-3, 1980).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Adjustment (to Environment); *Behavior Change; Behavior Problems; Classroom Research; *Emotional Disturbances; *Interpersonal Competence; *Intervention; *Peer Evaluation; Primary Education; Program Descriptions; Program Evaluation; Skill Development; Small Group Instruction; Social Behavior; Training Methods

ABSTRACT

The usefulness of problem-solving training with emotionally troubled students and of peer ratings as an index of change was investigated to determine the success of an early intervention program. During a 14-week period, advanced undergraduates (N=6) conducted a small-group intervention program focused on social skills training for 32 maladaptive students. Comparisons between pre- and post-intervention data indicated that children in the program made significantly greater gains in classroom adjustment and in peer acceptance than did a control group. Results suggest that an interpersonal problem-solving model can be used effectively as an intervention strategy with high-risk primary grade children. (Author/HLM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED188088

Conference noted on release
form. C.K. Jaslow

Evaluation of Social Competence Training in the Schools

Anthony P. Mannarino
Pittsburgh Child Guidance Center

Joseph A. Durlak
Southern Illinois University

Monica Christy
Pittsburgh Child Guidance Center

Max G. Magnussen
University of New Mexico

Running Head: Evaluation of Social Competence Training

CG 014485

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Anthony Mannarino
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Requests for reprints should be sent to: Anthony P. Mannarino, Ph.D., Pittsburgh Child Guidance Center, 201 De Soto Street, Pittsburgh, PA 15213

Evaluation of Social Competence Training in the Schools

Recent years have witnessed a gradual evolution of school-based preventive mental health programs that vary widely in terms of intervention strategies and evaluation criteria. The first major effort to detect and provide immediate treatment for early school maladjustment was the Primary Mental Health Project (PMHP) established in 1958 (Cowen, Dorr, Izzo, Madonia, and Trost, 1971; Cowen, Frost, Dorr, Lorion, Izzo, and Isaacson, 1975; Cowen, Zax, Izzo, and Trost, 1966). The primary thrust of PMHP has been to provide high-risk children in grades kindergarten to three with weekly relationship-oriented, non-directive play sessions conducted by non-professional child aides. Extensive research has demonstrated that children identified as high-risk develop increasingly serious adjustment problems without intervention (Cowen, Pederson, Babigian, Izzo, and Trost, 1973; Zax, Cowen, Rappaport, Beach, and Laird, 1968). Additionally, high-risk children who participate in the PMHP program, when compared to high-risk control groups, are able to make significant improvements in school adjustment (Cowen, Zax, Izzo, and Trost, 1966; Cowen, 1968) and these gains are maintained over time (Cowen, Dorr, Trost, and Izzo, 1972).

Durlak (1977), using PMHP screening and evaluation criteria, tested the effectiveness of a behaviorally-oriented intervention program in which the child aides were teachers rather than trained housewives as in PMHP. Target behaviors were selected for each child which were opposite to the dysfunctional school behaviors. In addition, a token reinforcement program was established

in which teachers rewarded target behaviors with tokens and verbal praise. As with PMHP's relationship-oriented approach, significant changes in behavioral adjustment occurred in the experimental as compared to the control group and these differences remained stable seven months later.

In 1977, Durlak and Mannarino introduced another intervention model, the Social Skills Development Program. Previous research had demonstrated that the development of good peer relations during childhood is an important predictor of later adult adjustment (Mednick and Schulsinger, 1969; Roff, 1969). It was therefore hypothesized that a preventive program whose objective was to improve social skills would lead to successful later adjustment. Durlak and Mannarino (1977) designed a program of group activities utilizing a behavioral framework with one group of youngsters and a relationship-oriented approach with another group. In both groups, promoting peer interactions was the major focus. Recent data (Durlak and Mannarino, 1979) have documented the effectiveness of both interventions in fostering the development of social competencies in high-risk children.

From a different theoretical perspective and using a preschool population, Spivack and Shure (1974) have helped normal children to develop social competence through teaching interpersonal problem-solving skills. Specifically, they have focused on helping children to identify interpersonal problems, generate alternative solutions to these problems, and anticipate the consequences of these solutions. The Social Competence Program presented in this paper incorporates many features of the problem-solving model developed by Spivack and Shure but extends their work to a group of children at high risk for maladjustment problems. This study was therefore intended to evaluate the application

of problem-solving training to children already identified as potentially manifesting emotional problems and the usefulness of this model in a program that focuses on early intervention.

Another point of departure in this study from earlier research is in the area of evaluation criteria. The criteria most often employed to evaluate the effectiveness of school-based early intervention programs have been teacher ratings (Durlak, 1977; Cowen, Dorr, Clarfield, Kreling, McWilliams, Pokracki, Pratt, Terrell, and Wilson, 1973). Observations of classroom behaviors have also been utilized and have been shown to correlate with teacher ratings (Durlak, Stein, and Mannarino, 1980). A potentially useful but seldom used indicator of social skills development are sociometric or peer ratings. In fact, the authors were able to locate only one study of social skills training in the elementary schools (LaGreca and Santogrossi, 1980) where sociometric ratings were included in the outcome measures. In this particular investigation, a behavioral social skills program was found to have no impact upon levels of peer acceptance. Despite this negative finding, other research has documented the importance of sociometric ratings. Cowen et al (1973) found, for example, in retrospective analyses that peer judgment was the most sensitive predictor of later psychiatric difficulty. Similarly, Kohlberg, LaCrosse, and Ricks (1972) have concluded, based on a review of a number of prospective research studies, that children's evaluations of peers are better predictors of future adjustment than ratings by adults or mental health professionals. In this study, the usefulness of peer ratings as an index of change in an early intervention program for primary grade children was explored.

Method

Community Setting

The training program was conducted in an elementary school located in a suburban, working class area. This school enrolls approximately 700 children in grades one through eight. Two hundred twenty-six children in grades one through three served as the target population and were screened using the procedures described below.

Instruments

Two PMHP-developed measures were used to screen and select program children and to evaluate the effectiveness of intervention.

AML. The AML is an 11-item, 3-factor, quick screening device designed to detect early school maladjustment (Cowen, Dorr, Clarfield, Kreling, McWilliams, Pokracki, Pratt, Terrell, and Wilson, 1973). Teachers rate children's classroom behavior using 5-point frequency scales (1=never, 5=very often). The AML yields a total score (total AML) and subscale scores for Acting Out (A; 5 items); Mood (M), that is, shy-withdrawn (five items); and Learning (L; one item). Higher scores indicate greater maladaptation.

Classroom Adjustment Rating Scale (CARS). The CARS was used to provide a more detailed evaluation than the AML of the child's classroom difficulties (Lorion, Cowen, and Caldwell, 1975). On the CARS, teachers rate a series of potential school adjustment problems along 5-point scales (1=not a problem at all, 5=very serious problem). A total score and subscale scores for Acting Out (A; 10 items), Mood (M; 13 items), and Learning (L; 15 items) are computed. Higher scores reflect more severe problems.

Subjects

High-risk children were selected by screening all of the children in grades one through three. Teachers submitted AML's for all children and those with the highest AML scores (top 25%) were considered as a potential high-risk group. For these youngsters, teachers then submitted CARS. This procedure identified 64 high-risk children, 42 boys and 22 girls. These children ranged in age from 6.5 to 8.8 years. Children were then randomly assigned to the experimental group which received social skills training and a control group which received no training but who were equal to the experimental group in terms of pre-intervention teacher ratings. The experimental and control groups each had 21 boys and 11 girls. All of the parents of these 64 children granted written permission for their youngsters to participate in the project. Parental consent was limited to obtaining consent for the child's participation.

Group Leaders and Group Composition

The experimental group received social skills training on a small group basis. Group leaders consisted of six advanced undergraduates who were students at the University of Pittsburgh. There were three males and three females, all of whom were psychology majors. They received academic credit for their participation in the program. Group leaders attended four two-hour training sessions that focused on interpersonal problem-solving techniques (Spivack and Shure, 1974). During the program, there were weekly one-hour group supervisory sessions. In addition, the first author periodically observed group meetings and gave leaders specific feedback about their handling of activities and intervention strategies.

From the experimental group, four small groups of eight children were composed which met for one-hour per week for fourteen weeks. One pair of group leaders conducted two groups while the other two sets conducted one each. Groups were composed such that there was a balance in terms of problem behaviors and sex. Thus, shy-withdrawn as well as acting-out children plus a mixture of boys and girls were included in each group. Meetings were scheduled at times that were convenient to leaders' and children's schedules.

Program Intervention

As stated earlier, intervention was based upon the earlier work of Spivack and Shure (1974). A basic tenet of this model is that children have the capacity to solve their own problems and that adults should facilitate children's problem-solving but not solve the problems for them. Social skills training focused on three major areas: the identification of interpersonal problems, the generation of alternative solutions, and the anticipation of consequences of these solutions.

Weeks one through four concentrated on the identification of interpersonal problems. An important component of this phase of the program was feeling identification. It was felt that in order to understand interpersonal problems, one must first identify the feelings of those in conflict. In one exercise designed to promote feeling identification, children were given pictures of people exhibiting a wide array of feelings. They were then asked to label the feeling for each picture and explain what features of the person (e.g., facial expression, gestures, etc.) helped them identify the feeling. In a similar

exercise, children were themselves asked to pretend that they were feeling sad, happy, angry, etc., and the remaining group members were to guess the feeling based only on non-verbal gestures and facial expressions. In addition to feeling identification exercises, puppets and role-playing were used to set-up interpersonal problems that children could discuss. The focus here was on defining the problem and developing a goal (e.g., getting one's pencil back if another child has taken it).

Weeks five through eight were devoted to the generation of alternative solutions to interpersonal problems. Again through the use of puppet scenarios, role-play exercises, group discussion, and brief stories, children were presented with problems and asked to generate alternative solutions. Children were asked to come up with as many solutions as possible without focusing on the social appropriateness or likely success of the solution. Thus, at this stage of the training, "hitting the other child" or "asking the other child politely" were equally acceptable solutions to the problem of one child taking another's pencil. If children had difficulty generating solutions, group leaders attempted to prompt the children and provide clues.

Weeks nine through twelve focused on the anticipation of the consequences of solutions. Here children discussed the solutions to problems presented during earlier meetings and tried to generate the best solutions in terms of social acceptability and probability of reaching one's goal. To make this step of the problem-solving process as concrete as possible for these young children, group leaders used a portable chalkboard and wrote solutions on one side and possible consequences on the other. Utilizing this procedure, children connected solutions and consequences and then selected the best solution.

The final two weeks of the intervention were designed to help the program children see the problem-solving process as a complete whole. With the aid of the group leaders, sub-groups enacted brief scenarios with or without puppets in which an interpersonal problem was portrayed. The remaining children discussed the problem and suggested the best solution which the sub-group then role-played. Children took turns role-playing and discussing problems. An important element of this phase of the training was "once you have a good solution, try it out."

In addition to the formal problem-solving training described above, interpersonal disputes frequently arose between children where group leaders had the opportunity to facilitate adaptive problem-solving. Consistent with the adopted model, leaders helped children define the problem, formulate a goal, generate alternative solutions, and anticipate the consequences of these solutions. Thus, problem-solving skills were taught formally each week through specific exercises plus informally through the handling of common problems that arise in children's groups.

Program Evaluation

In order to document the effectiveness of the social competence training, teachers again filled out the AML and CARS on all children in both the experimental and control groups within two weeks after the project had ended. Change scores from the pre- to post-testing were then compared for the two groups.

Additionally, peer ratings were also used as an index of change. Since a previous review of the literature (Mouton, Blake, and Fruchter, 1960) had concluded that sociometric criteria are positively correlated, it was felt that

general sociometric criteria would be acceptable in this study. A brief sociometric questionnaire was therefore used. In this regard, all children in the first, second, and third grades at the target school were asked before the program commenced to name three children to play with after school, to do a group project with, and to go to another classroom with. This sociometric questionnaire was completed again within a week after the project had finished. Change scores from the pre- to post-testing for the experimental and control groups were then compared.

Results

Teacher Ratings

Table 1 presents pre- and post-training mean AML and CARS scores for experimental and control children. Group means were compared using t ratios. Before the problem-solving training, there were no significant differences between groups. After the training, however, the experimental group had significantly lower scores on both scales and all of the subscales than the control group.

To examine change over the course of training, pre- to post-training AML and CARS change scores were calculated for both groups by substracting post- from pre-training ratings. Positive scores indicate improvement. As can be seen in Table 1, the experimental group made greater improvements (all significant but one) in all areas of adjustment as rated by teachers than the control group. In fact, the control group remained virtually unchanged in some areas of adjustment or actually worsened slightly in others from the pre- to post-ratings.

Peer Ratings

A number of statistical procedures were first conducted in order to validly analyze these data. Since it is frequently reported that raw scores of social acceptance are positively skewed (Hartup, 1970), a measure of skewness was obtained for each of the seven class distributions across the three grades, using the formula given in Downie and Heath (1965). It was found that each of the distributions was only very slightly skewed and thus fairly closely matched a normal curve. Consequently, transformations to normalize the distributions did not seem warranted. Z scores were then computed with a mean of five and standard deviation of one, in order to correct for variations in class size. Thus, the scores reflected deviation from class means in units of standard deviations rather than absolute number of nominations. The latter could vary markedly on the basis of group size without giving an accurate indication of group status. Also, the use of five as the mean rather than zero eliminated negative scores and simplified computation. The test for skewness and use of Z scores were utilized on both the pre- and post-sociometric ratings.

With this procedure, it was found that the peer ratings of the experimental and control groups did not significantly differ (Experimental group $\overline{M}$-4.48; Control group $\overline{M}$-4.438; t(63=.03) on the pre-measure. On the post-measure, the means for the experimental and control groups were, respectively, 5.201 and 4.379. A t test performed on the change scores yielded a t(63) of 2.65 which is significant at the .01 level with a 2-tail analysis. Thus children who participated in the social competence program made significantly better gains

in sociometric acceptance than a group of children who did not participate in the intervention. In fact, the control group's level of social acceptance remained virtually unchanged.

Discussion

The results of the present investigation lend support to the efficacy of group social skills training for improving children's behavioral adjustment as rated by teachers and level of peer acceptance. In particular, this study demonstrates that the interpersonal problem-solving model can be used effectively as an intervention strategy with children at high risk for the development of maladjustment problems. It can therefore be added to the growing list of successful interventions with high risk primary grade children (Cowen, Trost, Dorr, Lorion, Izzo, and Isaacson, 1975; Durlak, 1977; La Greca and Santogrossi, 1980; Durlak and Mannarino, 1979).

In the authors' opinion, the most important finding of this study is the positive change in peer ratings in the experimental group. Whereas the level of social acceptance of the control group remained virtually unchanged, children in the experimental group made significant gains in sociometric status. There are a number of reasons for the importance of this finding. First, sociometric status would appear to be a highly relevant criterion in assessing the impact of social skills training as clinicians and researchers have long viewed level of social acceptance as an important index of one's effectiveness with peers. In fact, in a thorough review of the literature, Hartup (1970) found peer acceptance to be positively correlated with such characteristics as friendliness, sociability, cooperation, and socioempathy. Secondly, considering the well-documented

evidence on the stability of sociometric status over long time periods (Bonney, 1943; Campbell and Yarrow, 1961; Hartup, 1970; Miller and Maruyama, 1976), the fact that gains were made in peer acceptance as a function of a brief intervention program is highly significant. Moreover, this finding also underscores the critical importance of interpersonal problem-solving training because in a previous study (La Greca and Santogrossi, 1980), it was demonstrated that behavioral social skills training had no impact on sociometric status. Finally, since it has been shown that peer acceptance is an important predictor of overall adult adjustment (Roff, 1969; Kohlberg, LaCrosse, and Ricks, 1972), it would appear that social skills training during childhood may well have long-term impact. Follow-up studies are needed, however, to document that improvements in social skills and sociometric status have been maintained over time and that they are significantly related to adult outcome.

A couple of methodological shortcomings of this study are worth noting. First, there was no attempt to measure the skills that we were trying to teach the program children, i.e., interpersonal problem-solving skills. Thus, although program children gained in behavioral adjustment and sociometric status, one cannot be certain that these changes were the result of improved interpersonal problem-solving abilities. Another problem in the design of the study was the failure to include an attention-placebo control group which could have ruled out the possibility that positive findings were the result of the added attention and time given to the children in the experimental group. Despite these limitations, this investigation supports the usefulness of social competence training within an interpersonal problem-solving model in improving the behavioral

adjustment and level of peer acceptance of children at high risk for the development of emotional and behavioral problems.

References

Bonney, M.E. Personality traits of socially successful and unsuccessful children. Journal of Educational Psychology, 1943, 34, 449-472.

Campbell, J.D. and Yarrow, M.R. Perceptual and behavioral correlates of social effectiveness. Sociometry, 1961, 24, 1-20.

Cowen, E.L. The effectiveness of secondary prevention programs using non-professionals in the school setting. Proceedings of the 76th Annual Convention of the American Psychological Association, 1968, 2, 705-706.

Cowen, E.L., Zax, M., Izzo, L.D. and Trost, M.A. The prevention of emotional disorders in the school setting: A further investigation. Journal of Consulting Psychology, 1966, 30, 381-387.

Cowen, E.L., Dorr, D., Izzo, L.D., Madonia, A., and Trost, M.A. The Primary Mental Health Project: A new way to conceptualize and deliver school mental health service. Psychology in the Schools, 1971, 8, 216-225.

Cowen, E.L., Dorr, D., Trost, M.A., and Izzo, L.D. Follow-up study of maladapting school children seen by non-professionals. Journal of Consulting and Clinical Psychology, 1972, 39, 235-238.

Cowen, E.L., Dorr, D., Clarfield, S., Kreling, B., McWilliams, S.A., Pokracki, F., Pratt, D.M., Terrell, D.L., and Wilson, A.B. The AML: A quick screening device for early identification of school maladaptation. American Journal of Community Psychology, 1973, 1, 12-35.

Cowen, E.L., Pederson, A., Babigian, H., Izzo, L.D., and Trost, M.A. Long-term follow-up of early detected vulnerable children. Journal of Consulting and Clinical Psychology, 1973, 41, 438-446.

Cowen, E.L., Trost, M.A., Dorr, D., Lorion, R.P., Izzo, L.D., and Isaacson, R.V. New ways in school mental health: Early detection and prevention of school maladaptation. New York: Behavioral Publication, 1975.

Dowdie, N.M. and Heath, R.W. Basic statistical methods, (2nd Ed.). New York: Harper and Row, 1965.

Durlak, J.A. Description and evaluation of a behaviorally oriented school-based preventive mental health program. Journal of Consulting and Clinical Psychology, 1977, 45, 27-33.

Durlak, J.A. and Mannarino, A.P. The Social Skills Development Program: Description of a school-based preventive mental health program for high-risk children. Journal of Clinical Child Psychology, 1977, 6, 48-52.

Durlak, J.A. and Mannarino, A.P. Behavioral vs relationship treatment in the secondary prevention of school maladjustment. Unpublished manuscript, 1979.

Durlak, J.A., Stein, M.A. and Mannarino, A.P. Behavioral validity of a brief teacher rating scale (the AML) in identifying high-risk acting-out school children. American Journal of Community Psychology. In press.

Freeman, H.E. and Sherwood, C.C. Research in large-scale intervention programs. Journal of Social Issues, 1965, 21, 11-28.

Hartup, W. Peer interaction and social organization. In P. Mussen, (Ed.), Carmichael's manual of child psychology. New York: John Wiley, 1970.

Kohlberg, L., LaCrosse, J. and Ricks, D. The predictability of adult mental health from childhood behavior. In B. Wolman (Ed.), Manual of child psychopathology. New York: McGraw Hill, 1972.

La Greca, A.M. and Santogrossi, D.A. Social Skills training with elementary school students: A behavioral group approach. Journal of Consulting and Clinical Psychology, 1980, 48, 220-227.

Lorion, R.P., Cowen, E.L., and Caldwell, R.A. Normative and parametric analyses of school maladjustment. American Journal of Community Psychology, 1975, 3, 291-301.

Mannarino, A.P. and Durlak, J.A. Implementation and evaluation of service programs in community settings. Professional Psychology. In press.

McKillip, J. Three flexible designs for impact evaluation of service programs. Evaluation Quarterly. In press.

Mednick, S.A. and Schulsinger, F. Factors related to breakdown in children at high risk for schizophrenia. In M. Roff and D.F. Ricks (Eds.). Life history studies in psychopathology. Minneapolis: University of Minnesota Press, 1969.

Miller, N. and Maruyama, G. Ordinal position and peer popularity. Journal of Personality and Social Psychology, 1976, 33, 123-131.

Mouton, J., Blake, R. and Fruchter, B. The reliability of sociometric measures. In J.L. Moreno (Ed.), Sociometry reader. Illinois: Free Press of Glancor, 1960.

Roff, M. Some life history factors in relation to various types of adult adjustment. In M. Roff and D.F. Ricks (Eds.), Life history studies in psychopathology. Minneapolis: University of Minnesota Press, 1969.

Spivack, G. and Shure, M.B. Social adjustment of young children. San Francisco: Joseey-Bass, 1974.

Zax, M., Cowen, E.L., Rappaport, J., Beach, D.R. and Laird, J.D. Follow-up study of children identified early as emotionally disturbed. Journal of Consulting and Clinical Psychology, 1968, 32, 369-374.

Table I

Means and ts for AML, CARS, and Change Scores for Experimentals (m=32) and Controls (m=32)

	Pre		Post			Change Scores		
Measure	E	C	E	C	t	E	C	t
AML								
Acting-Out	15.59	15.81	12.65	15.87	-3.12**	2.94	-.06	4.17***
Mood	14.81	14.56	11.31	14.32	-2.98**	3.50	.24	4.88***
Learning	3.48	3.41	2.77	3.50	-2.21*	.71	-.09	5.67***
Total	33.88	33.78	26.73	33.69	-4.28***	7.15	.09	4.62***
CARS	27.19	27.91	24.98	28.06	-2.17*	2.21	-.15	1.91
Mood	31.03	30.41	27.17	31.32	-2.66**	3.86	-.91	4.72***
Learning	33.72	33.52	30.07	34.42	-2.52*	3.65	-.90	4.81***
Total	91.94	91.84	82.22	93.80	-2.97**	9.72	-1.96	5.01***

NOTE: All pre AML and CARS t comparisons were non-significant and are not listed.

* $p < .05$
** $p < .01$
*** $p < .001$